How did this happen?

On August 5, an EPA team working to excavate material in a mine portal at the Gold King Mine triggered the release while excavating loose material that had collapsed into a mine entry. The excavation released pressurized water that was held above the mine tunnel, spilling about three million gallons of water into Cement Creek, a tributary of the Animas River. The EPA team was working to secure access and identify a way to reduce the flow of contaminated water from the mine into Cement Creek.

What is EPA doing to respond?

EPA has deployed a large response team to Durango and Silverton, Colorado and to several locations in New Mexico, Utah and the Navajo Reservation to coordinate with affected states, tribes and communities on various response activities and to address impacts associated with the Gold King mine wastewater release.

EPA's primary objectives include working with federal, state, tribal and local authorities to make sure that people continue to have access to safe drinking water, ensure appropriate precautions are in place for recreational use and contact with river water, evaluate impacts to aquatic life and fish populations, and stop the flow of contaminated water into the watershed at the Gold King Mine site.

What are the health risks?

Based on the data we have seen so far, EPA and ATSDR do not anticipate adverse health effects from exposure to the metals detected in the river water samples from skin contact or incidental (unintentional) ingestion. Similarly, the risk of adverse effects to livestock that may have been exposed to metals detected in river water samples from ingestion or skin contact is low. We continue to evaluate water quality at locations impacted by the release.

Although the pH levels between Cement Creek and Durango (and lower, in San Juan as well) have returned to baseline levels, washing with soap and water after contact with the river water is always sound public health practice to minimize exposure to any metals and bacteria that may be present in untreated river water.

Why is it taking so long for EPA to release water quality data? Several other agencies/ entities have released data and have indicated that water is safe for recreational use? Why is EPA so slow?

EPA is working around the clock to collect and analyze water quality information to develop a comprehensive picture of water quality at various locations over time. This is a massive task and doing it right is critical to make sure we are doing all we can to develop the sound science that will inform recommendations and decisions that protect the public.

This is a time-consuming process. We are looking to develop and evaluate a full picture of the release event and water quality conditions before, during, and following the movement of the plume downstream, not just single samples or points of data taken in one place. EPA is sampling water at several locations in the Animas and San Juan Rivers for a suite of metals and contaminants. The lab work and quality assurance process for generating these data is extensive and designed to make sure we can have confidence in our results. This includes XX time for collection, transport, lab processing, data production, etc.. (fill in blanks on process). This effort is generating thousands of data points which must

be analyzed by our scientists, placed in the context of other data collected, assessed for trends, and compared to risk screening levels that EPA uses to make sure public health is protected.

EPA also must evaluate the full set of data collected through the past few days and develop an understanding of the concentrations of metals that were deposited in sediments on the river bed and banks. This analysis will ensure that any recommendations about reopening drinking water intakes and reopening the river for recreational use are based on the science and the process we use to assess risk and ensure public health.

What do the data say? What's next? When will the river(s) reopen?

EPA is collecting and assessing water quality from the Animas and San Juan Rivers daily. Over the next days, we will be jointly evaluating data and information with partners to determine when access to the Animas River will be restored for activities and uses such as rafting, fishing, irrigation, and drinking water. We will do the same with our partners to evaluate the status of advisories and water intakes New Mexico and the Navajo Nation.

The water quality data we have analyzed thusfar is encouraging and points to minimal short term risks associated with the plume and a return to pre-event baseline conditions in the Animas River in Colorado. (Confirm downstream status—what do we know) In the San Juan near Farmington, data indicate the plume dissipated as it traveled downstream and samples show a smaller rise in acidity and metals levels in the river compared to the Animas. Further downstream, data suggest slight impacts as the plume dissipated and no leading edge was visible. While we are taking samples in Lake Powell near the San Juan River inflow, we expect no adverse impacts to the Lake or other locations below the lake.

While this information is encouraging, we need to thoroughly evaluate the full set of data collected over the past few days and develop an understanding of metals levels in water and in sediment deposited in the river before making recommendations. EPA is working with our partners to review all data collected to develop a comprehensive picture of water quality conditions in the river and in the plume itself. This will ensure our decisions are based on sound science and provide confidence that use decisions are made based on EPA's health and risk criteria.

Our longer-term concern is the effect of metals deposited in sediments and their release during high-water events and from recreational use over time. These sediments may pose some risk, especially to aquatic life and fish. Because we have been working to assess impacts to water quality in the Animas and San Juan Rivers? for several years, we have good information and data on background conditions in the rivers. EPA will use this information to assess long-term needs and evaluate our progress in restoring the waters impacted by the Gold King Mine release.

From a scientific perspective, what contaminants have been found and at what concentrations?

Data are posted at XXX.

<u>Drinking Water Systems/Intakes and Populations Served</u>

How do I know if my drinking water is safe?

Intakes that supply water to drinking water treatment systems in the Animas and the San Juan Rivers remain closed and systems are using alternate sources to supply their customers.

EPA is also working to address any risks to domestic wells that draw from water sources fed by river water. EPA and others? are working directly with those who have concerns about potential impacts to domestic wells. EPA will sample and secure alternate water for those affected. **Where, how many?**

What are you doing to make sure people have clean water supplies in Navajo Country?

For Rusty/R9 others.

(Is this detail below needed? Can someone round this info up?)

How many systems have been impacted by this incident?

Which specific systems have been impacted?

How many intakes at each of these systems have been shut down?

What is the population served for each of the impacted systems?

How many people use water from the Animas River for drinking water?

What about wildlife and fish?

(Need Update) The assessment of impacts to wildlife and fish populations is ongoing. To date we have seen no indication of widespread fish mortality in the Animas or San Juan Rivers. Fish cages placed directly in the Animas River by the State of Colorado Division of Parks and Wildlife for two days indicate one mortality out of 108 fish tested. (Any more fish info from Colo or NM or Navajo?) EPA is also working with the New Mexico Department of Game Fish and the U.S. Fish and Wildlife Service to investigate reports of impacts to wildlife. (did this yield any discoveries, response, etc.)

While this information is encouraging in terms of short term impacts to fish, we will be evaluating long term impacts associated with exposure to the plume and the impacts of deposited sediments over time. EPA will be working with the States of Colorado, New Mexico and the Navajo Nation to evaluate these and other ecological impacts as we move forward.

What are the impacts to agricultural users? How many farms/producer operations are affected?

<u>Discharge and Plume Status</u>

Where is the leading edge of the plume?

As of Tuesday, there was no visible leading edge of the GKM plume in the lower San Juan River as it approached Lake Powell. We estimate that the water associated with the release reached Lake Powell sometime on Wednesday afternoon. While our ongoing evaluation of water quality sampling data will provide details about water quality in the San Juan as water associated with the release traveled downstream over the past few days, initial data indicate **no/minimal/ small/ moderate changes** in acidity levels in the River. Lake Powell is a large body of water and we expect no significant impacts to the Lake, the Colorado River, or any water bodies downstream.

Is contaminated water still being discharged from the mine? How much water is leaking from mine now, i.e., what is the current discharge rate?

Yes, discharge rates from the mine since the release have ranged between 400-800 gpm. A treatment system was constructed on August X and is capturing and treating the contaminated discharge by reducing acidity and removing metals. The system is discharging water with a ph of 5; background levels in Cement Creek are more acidic, with a ph of 3.5. (check #s) We expect the discharge from the mine will vary over time. Additional investigation will inform any next steps and help ensure that water continues to be treated before being discharged to Cement Creek.

Contaminated water was being discharged from the mine prior to the wastewater release on August 5 at a rate of about 200 cfs (Check numbers and convert to cfs or gpm equivalents). EPA was investigating that discharge to identify a way to stop or reduce the loading of contaminants to Cement Creek.

What is the total volume discharged to date?

The spill volume associated with the release on august 5 is 3M gallons.

Site History and Background

Is it true that EPA had been advocating that the Gold King Mine and the Upper Animas River be listed as a Superfund site and that local communities have resisted that designation? Would such a designation help prevent these types of incidents from occurring.

EPA takes full responsibility for the release that occurred on August 5. Superfund brings a unique set of resources, tools and authorities to address large scale and challenging environmental cleanup sites. The water quality challenges posed by abandoned mines can be complex and often benefit from a comprehensive approach to investigation, planning and cleanup that the SF process entails.

Is there more information about the Gold King Mine and the Upper Animas River?

Upper animas website, not specific to GKM

Is there any precedent for this type of spill? Have there been any previous spills of this magnitude?

What is the scope of pollution from hard rock mines?

BLM AML website contains info on scope and scale. It is a widespread problem. EPA and federal, state, local and tribal partners have worked to successfully improve water quality concerns at hundreds of priority sites across the West.

Financial Claims and Accountability

Why does EPA's claims process require people to forego their ability to sue the Agency?

Statement on Navajo criticism?

For what types of losses can I be compensated?

Details can be found here.

What is the process for filing a claim for financial compensation?

Who pays for financial losses to private citizens, businesses, and communities?

How many claims has EPA received?

How much does EPA expect to pay out in claims?

What is EPA doing to make sure this doesn't happen again?

EPA has worked successfully to address environmental concerns at hundreds of abandoned mine sites across the West. We will thoroughly investigate this incident and are committed to applying all lessons learned to our work as we move forward.

While we continue to investigate the root causes of last week's release of mining waste at the Gold King Mine in Colorado, we are instructing our Regions to immediately cease any field investigation work at mines including tailings facilities, unless there is imminent risk in a specific case. We are in the process of initiating an independent assessment by a sister federal agency or another external entity to examine the factors that led to last week's incident. Based on the outcome from that assessment, we will determine what actions may be necessary to avoid similar incidents at other sites. While we stand down on existing field investigations and assessments at these mining sites, we also are instructing our Regions to identify existing sites with similarities to the Gold King Mine site and to identify any immediate threats and consider appropriate response actions."

Who, specifically, is responsible for the release?

An EPA Region 8 team was working at the site with a response contractor.

Will anyone be fired as a result of this incident? If so, who?

EPA and others will be thoroughly investigating the full facts regarding this incident and the response and will respond based on that information.